Math 1324.102H2
Mathematics for Business and Social Sciences
Spring 2025
Hybrid (Lecture 75% and Online Learning 25%)
TTh   8:00 am – 10:50 am   STE103

Instructor Information: James Griffiths   409-933-8225   jgriffiths@com.edu

Student hours and location: **Second 8 – Weeks**
                                M   12:30 pm –   2:30 pm STE325-08
               Co-Req   W   12:30 pm –   1:30 pm Tutoring Center ICB-109
                   MW   4:15 pm –   5:00 pm STE325-08
                   TTh   11:00 pm – 12:30 pm STE325-08

Required Textbook: The textbook is <u>Finite Mathematics with Applications</u>, 13th edition, by Lial, Hungerford, Holcomb, and Mullins, Pearson Publishing Company. The e-text is provided with *MyLab Math*. The student will need a computer and internet service outside of class to gain access to the online assignments on *MyLab Math*. Computers and internet access are available on campus during specified times. A Texas Instruments TI30XIIS scientific calculator is recommended. A pencil is required for all assignments. A ruler is required for sketching graphs.

Course Description: The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability.

Course Requirements:
Supplies: A Texas Instruments TI30XIIS scientific calculator is recommended. Graphing calculators may not be used on exams. A pencil is required for all assignments.

Homework Assignments on MyLab Math: There is a homework assignment for each unit covered. These are listed on the course outline in the syllabus and on the list of assignments on MyLab Math. Each homework assignment must be completed by 11:59 pm on the due date shown on both the course outline and on the list of assignments on MyLab Math. The student has a limit of **three** attempts to answer each question correctly on the homework assignments.

The student may stop working on a homework assignment and return to the assignment any time before the due date and time.

Quizzes on MyLab Math: Four quizzes which relate to the student learning outcomes, will be taken on MyLab Math. Like the homework assignments, the due dates are shown on both the course outline in the syllabus and on the assignment list on MyLab Math. Unlike the homework assignments, the quizzes must be taken in one sitting, they are timed, and the student gets only one attempt to answer each question. The quizzes may be retaken one time. The higher of the two grades will be used to determine the student's quiz average.

It is important that the student read and understand the warnings that begin on page 2 of the Orientation Notes, which discuss taking quizzes on MyLab Math. Failing to follow the suggestions presented in that document can cause a quiz to be terminated. The instructor will not change a grade on any assignment on MyLab Math. Nor will the instructor open a quiz or exam from which the student has been locked out. The Orientation Notes can be found among the tabs for this course on Brightspace D2L.

Chapter Exams: There are four exams which cover the chapters in the textbook. The exams are taken in class on the due dates shown on the course outline in the syllabus. The student has 90 minutes to take each exam. Exams may not be retaken. However, if the grade on the final exam is higher than the lowest chapter exam grade, the final exam grade will replace the lowest chapter exam grade.

Comprehensive Final Exam: The final exam is taken in class on the due date shown on the course outline in the syllabus. The student has 90 minutes to take the final exam. The final exam may not be retaken.

Determination of Course Grade/Detailed Grading Formula:
Comprehensive Final Exam   20%
Average of Chapter Exams   60%
Homework Average   10%
Quiz Average   10%
Final Average   100%

Grade I: Given unforeseen circumstances that result in the student's inability to successfully complete the course objectives, an I-Contract may be requested from the instructor, assuming you meet the following criteria:
1. Have a passing overall average (70 or higher)
2. All work completed except for The Final Exam.

Grading Scale:
Grade A: Final Average is [89.5, 100]
Grade B: Final Average is [79.5, 89.5)
Grade C: Final Average is [69.5, 79.5)
Grade D: Final Average is [59.5, 69.5)
Grade F: Final Average is [0, 59.5)

Late Work, Make-Up Exams, and Extra-Credit Policy:

Late Work: There is a twenty (20) point penalty for all homework and quizzes submitted after the due date. Any homework assignments or quizzes that are not finished by the due date of the associated exam will be given a grade of zero at the time the exam is given. If a homework assignment or quiz has been partially completed by this deadline, the grade on the assignment (less 20%) will be applied to the homework assignment or quiz.

Make-Up Exams: There are no make-up exams unless:
  1) the student notifies the instructor before the exam due date that they will miss the exam, and
  2) the reason for the requested make-up exam is extraordinary, such as the death of a close family member, or the student's admission to the hospital. (Transportation problems, minor illness, or scheduled doctor appointments are not extraordinary reasons for missing an exam.) Students will not be permitted to make up more than one exam. If a student makes up an exam, the final exam will no longer replace the lowest exam grade.

Extra Credit: Three points extra credit is given on exams if the student earns a score of 100 on the review. Extra-credit assignments may also be given throughout the course at the discretion of the instructor. Extra credit is never given at the end of the semester to bring up a poor grade. Do not even ask.

Attendance Policy: Students at COM are expected to attend and participate in every session of all classes for which they are registered. College of the Mainland recognizes no excused absences other than those prescribed by law. Students with excessive absences will be referred to Student Services. Students should consult information provided in MyLab Math and the course calendar when it becomes necessary to miss a class to be prepared when they return to class. The student is still responsible for work that is assigned during an absence and due dates still hold.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.
The preferred method of communication in this course is in person. If that is not possible, an email or phone call will be satisfactory, but do not leave a message on my phone. If you cannot reach me by phone, email me. Be sure to include your name, the course in which you are enrolled, and state your question completely.

Table Mapping SLO's and Core Objectives:

Student Learner Outcomes	Maps to Core Objective	Assessed via this assignment
1. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.	Empirical and Quantitative Skills (EQS)	Exam
2. Apply basic matrix operations, including linear programming methods, to solve application problems.	Critical Thinking Skills (CT)	Exam
3. Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems.	Visual Communication Skills (CS)	Exam
4. Apply matrix skills and probability analyses to model applications to solve real-world problems.	Critical Thinking Skills (CT)	Quiz

Academic Dishonesty: College of the Mainland is committed to a high standard of academic integrity. All students are responsible for honesty and independent effort. Incidents of academic and scholastic dishonesty (including cheating, plagiarism, and collusion) will be dealt with in a manner that is consistent with College Policy and the Student Handbook. Any student found to have been academically dishonest on an assignment, quiz or exam will receive a zero for that assignment, quiz or exam and he or she will be referred to the Office of Student Conduct for further disciplinary action. Read the sections of *Standards of Student Conduct and Discipline and Penalties* in the on-line Student Handbook

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me. If, after discussing your concern with me, you continue to have questions, please contact Mr. Leslie Richardson, Math Department Chair, at 409-933-8329 or lrichardson@com.edu.

Course outline:

<u>Week</u>   <u>Date</u>   <u>Sections</u>

1   3/11   **<u>In Class Lectures and complete MLM Assignments:</u>**
                Orientation Exercises Due 3/14
                5.1 Simple and Compound Interest   Due 3/14
                5.2 Annuities, Future Value, and Sinking Funds   Due 3/14
                <u>Watch the online videos and complete MLM Assignments:</u>
                5.3 Consumer Loans and Amortization   Due 3/14

        3/13   **<u>In Class Lectures and complete MLM Assignments:</u>**
                6.1 Systems: 2 Linear Equations in 2 Variables   Due 3/24
                6.2 Larger Systems of Linear Equations   Due 3/24
                <u>Watch the online videos and complete MLM Assignments:</u>
                6.3 Applications of Systems of Linear Equations   Due 3/24
                Quiz 1 (5.1 – 5.3)   Due 3/24

********** **SPRING BREAK** **********

2   3/25   **<u>In Class Lectures and complete MLM Assignments:</u>**
                6.4 Basic Matrix Operations   Due 3/26
                6.5 Matrix Products and Inverses   Due 3/26
                <u>Watch the online videos and complete MLM Assignments:</u>
                Review for Exam 1 Due at the beginning of class 3/27

        3/27   **Exam 1 (5.1 – 6.5)   Due 3/27**
                7.1 Graphing Linear Inequalities in Two Variables   Due 3/30
                <u>Watch the online videos and complete MLM Assignments:</u>
                7.2 Linear Programming: The Graphing Method   Due 3/30

3   4/1   **<u>In Class Lectures and complete MLM Assignments:</u>**
                7.3 Applications of Linear Programming   Due 4/4
                7.4 The Simplex Method: Maximization   Due 4/4
                <u>Watch the online videos and complete MLM Assignments:</u>
                7.5 Maximization Applications   Due 4/4
                Quiz 2 (7.2 – 7.5) Due 4/4

        4/3   **<u>In Class Lectures and complete MLM Assignments:</u>**
                8.1 Sets   Due 4/6
                8.2 Apps: Venn Diagrams, Contingency Tables   Due 4/6
                <u>Watch the online videos and complete MLM Assignments:</u>
                8.3 Introduction to Probability   Due 4/6

4	4/8	**In Class Lectures and complete MLM Assignments:**

In Class Lectures and complete MLM Assignments:
8.4 Basic Concepts of Probability   Due 4/9
8.5 Conditional Probability and Independent Events   Due 4/9
Watch the online videos and complete MLM Assignments:
Review for Exam 2   Due at the beginning of class 4/10
9.1 Probability Distributions and Expected Value   Due 4/11

4/10 **Exam 2 (7.1 – 8.5)   Due 11/7**
9.2 Mult. Principle, Permutations, Combinations   Due 4/13
Watch the online videos and complete MLM Assignments:
9.3 Applications of Counting   Due 4/13

5   4/15 **In Class Lectures and complete MLM Assignments:**
9.4 Binomial Probability   Due 4/16
10.1 Frequency Distributions   Due 4/16
Watch the online videos and complete MLM Assignments:
Quiz 3 (9.1 – 9.4) Due 4/16
10.2 Measures of Center   Due 4/16
Review for Exam 3   Due at the beginning of class 4/17

4/17 **Exam 3 (9.1 – 10.2)   Due 4/17**
3.1 Functions   Due 4/20
Watch the online videos and complete MLM Assignments:
3.1 Functions   Due 4/20

6   4/22 **In Class Lectures and complete MLM Assignments:**
3.2 Graphs of Functions   Due 4/25
3.3 Applications of Linear Functions   Due 4/25
Watch the online videos and complete MLM Assignments:
3.4 Quadratic Functions and Applications   Due 4/25

4/24 **In Class Lectures and complete MLM Assignments:**
3.5 Polynomial Functions   Due 4/27
3.6 Rational Functions   Due 4/27
Watch the online videos and complete MLM Assignments:
4.1 Exponential Functions   Due 4/27
Quiz 4 (3.1, 3.3, 3.4)   Due 4/27

******** Last Day to Withdraw from this Class is April 30 ********

7	4/29	**In Class Lectures and complete MLM Assignments:**

                  4.2 Applications of Exponential Functions   Due 5/2
                  4.3 Logarithmic Functions   Due 5/2
                  Watch the online videos and complete MLM Assignments:
                  4.3 Logarithmic Functions   Due 5/2

        5/1   **In Class Lectures and complete MLM Assignments:**
                  4.4 Logarithmic and Exponential Equations   Due 5/4
                  Review for Exam 4 Due at the beginning of class 5/6
                  Watch the online videos and complete MLM Assignments:
                  Review for Exam 4 Due at the beginning of class 5/6

   8   5/6   **Exam 4 (3.1 – 4.4)   Due 5/6**
                  Review for Comprehensive Final Exam   Due at the beginning of class 5/8
                  Watch the online videos and complete MLM Assignments:
                  Review for Comprehensive Final Exam   Due at the beginning of class 5/8

        5/8   **Comprehensive Final Exam   Due 5/8**

        The syllabus is subject to change at the discretion of the instructor.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact:
Kimberly Lachney, Student Accessibility Services Coordinator
Phone: 409-933-8919
Email: AccessibilityServices@com.edu
Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:
If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here https://www.com.edu/community-resource-center/. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.

Nondiscrimination Statement:
The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.